

## Thomas Morong.

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It is with feelings of sadness and regret that we are called upon to record the death of another of the older botanists, who are far too rapidly passing away from us. Dr. Thomas Morong belonged to the old school of systematic botanists, and during his life rendered an important service to science. His botanical career was unique in many ways. Though a clergyman by profession, he always pursued with undying enthusiasm his botanical studies in the face of many difficulties incident to the duties of a country minister, and late in life he abandoned entirely his profession to give himself up without restraint to the study of systematic botany in those branches to which he had always given his especial attention.

Thomas Morong was the son of Thomas Morong of Salem, Mass., and Jane C. Travers of Newmarket, Md. He was the eldest of four boys, and was born in Cahawba, Ala., Apr. 15, 1827, but as his father, who kept a store and owned a plantation, died when young Thomas was fifteen years old, the family moved north and settled in Woburn, Mass. Here he attended Warren Academy, and, part of the time, Hathaway's boarding school in Medford near by. He received a preparatory education at these two schools, and went to Amherst, where he was graduated in 1848, and on Aug. 24th of this year he married Mary L. Bennett, daughter of Rev. Joseph Bennett of Woburn, Mass.

He then entered the Harvard Law School, and for a time was a student in the office of Judge G. W. Warren of Charlestown, but the practice of the law being distasteful to him, he did not complete his studies. He then decided to enter the ministry, and accordingly went to Andover Theological Seminary, completing his course in 1853. He was ordained as a Congregational minister at Pepperell, Mass., Apr. 12, 1854, and from that time till 1888 he had charge of various parishes. In 1876 he went to Ashland, Mass., to supply the pulpit at the Congregational church. He was installed as pastor in 1878, and there he remained among his people, much beloved by them, for ten years.

Dr. Morong early acquired a strong taste for botanical pur-

suits, and as early as 1861 he built a greenhouse with his own hands and stocked it with plants. For two winters he had a class in botany in Ashland, and he was always ready to take his friends on a tramp, and instruct them in the secrets of the plant world and of nature generally, in a most delightful and unassuming manner, as those who have been with him abundantly testify. Through his own collecting and by purchase he acquired a large herbarium of North American phænogams, which was especially rich in aquatics. He always had a preference for flowering water plants, and in this branch he was an ardent student, besides having a wide knowledge of botany in general. He was preeminently a field-botanist, and it was a familiar sight to see him tramping off to his favorite ponds and streams, armed with his box and dredge. His keen observation, mature judgment, and wide knowledge of his subject combined to produce work of the highest order, and Dr. Morong holds a most honorable position as a systematic botanist.

During the botanical expeditions which he made from time to time he studied the flora of many of the eastern states, and his name is familiar in almost all of our local floras, as well as in our leading botanical papers, which are enriched by his valuable notes especially on the aquatic vegetation. The order to which he gave the most attention was the Naiadaceæ, and his name will always be associated with the genus *Potamogeton*, one of the most difficult, but to him most fascinating of studies. Not only did he investigate these plants thoroughly in their native haunts in pond, river and stream, but he carried on an extensive correspondence with American and European botanists in regard to them. It is a matter of congratulation that after so many years of honest, conscientious work, he at last published in March, 1893, in the *Memoirs of the Torrey Botanical Club*, "The Naiadaceæ of North America" with illustrations of every species. This work attracted much attention, and is a fitting monument to the author who died so soon after its publication.

In 1888, Dr. Morong carried out a plan which was to change completely the current of his life. This move of his showed clearly his ruling passion. He often had said to his confidential friends that he must do something for science, and he longed to go to South America and collect plants through the great water-ways that intersect the country in

every direction. He resigned his pastoral charge, collected a sum of money through the Torrey Botanical Club of New York, and a few kind friends, and on July 30, 1888, followed by the good wishes of his towns-people who presented him with a purse of money, he embarked on board the sailing vessel, *Evie J. Ray*, laden with lumber, for Buenos Ayres. He reached his destination in just ten weeks, and after a short stay in Argentina to perfect his plans, he went to Asuncion, Paraguay. Here he collected the rich and varied flora of this region till July, 1890. His enthusiasm was unabated, and though alone and unaided he sent back to the Columbia College Herbarium in New York about 900 species of phaenogamous plants, besides many ferns and mosses.

During his stay in Paraguay he went as naturalist on an exploring expedition up the Pilcomayo river, in the interest of the Paraguay Land Company. This trip of 400 miles into the heart of the Chaco wilderness, on a small flat-bottomed steamer was full of adventures with the wild natives and wilder jaguars, but Dr. Morong returned safely after an absence of six months to Asuncion with a large collection of valuable plants, consisting of about 2,500 specimens, including some 225 species, many of them new to science. As an illustration of the many difficulties to be overcome on the expedition, he writes the following: "We came upon a cataract of which nobody had ever heard, with a fall of five or six feet of water, and steep banks fifteen or twenty feet high each side of it. At first we thought this a 'stumper,' but finally we dug away an ascending plane on one side, and actually pulled the steamer, weighing five or six tons, up the falls by land." In July, 1890, he returned to Buenos Ayres, and after a considerable delay owing to the revolution raging at that time, he sailed around the cape to Valparaiso, Chili, where he met his brother after forty years of separation. From there he went to his brother's home at Caldera, in northern Chili, and for some weeks he revelled in the rich flora of the Atacama desert. He was astonished at the extraordinary sand, plain and hill flora of this remarkable region. "Strange, isn't it, that a desert should yield many flowering plants," he writes. On Oct. 25, 1890, he sailed for home, by way of the isthmus, reaching New York the following month. He had collected during his trip, entirely with his own hands, 20,000 specimens of plants, a collection rendered doubly valuable by his copious field notes.

On his return home, Dr. Morong accepted the position of curator of the herbarium at Columbia College, and there, for three years, among congenial friends and co-workers, he devoted himself heart and soul to his botanical studies. In 1892, in conjunction with Dr. N. L. Britton, he published the results of his work in Paraguay, "An Enumeration of the Plants collected by Dr. Thomas Morong in Paraguay, 1888-1890." This work is a valuable contribution to science, and it is pleasing to see that Dr. Britton has shown his appreciation for Dr. Morong's labors by dedicating many new species to him. His life in New York was a busy one. Besides the duties of his position and the original researches he was always carrying on in the herbarium, he was constantly writing for the various botanical journals. He conducted classes in botany at Barnard College, New York, and delivered lectures at the Biological Laboratory at Cold Spring Harbor, Long Island, at the Brooklyn Institute and elsewhere.

In December, 1893, he went south to shake off a bad cough which he had contracted in New York, but it was of no avail. Reaching Jacksonville, Fla., he was obliged to go to St. Luke's Hospital, and there he stayed till the middle of April, hoping against hope, for consumption had set in. The few lines which he was able to write showed his old enthusiasm, and his determination to recover. He returned north with much difficulty in April and went to his son's house in Boston where he died April 26, 1894, at the age of sixty-seven years. The funeral services were held in Woburn, and he was buried there in the family lot. His death was a peaceful ending to a well-spent life.

*Cambridge, Mass.*